Commonwealth of Kentucky
Division for Air Quality

PERMIT STATEMENT OF BASIS

(DRAFT)
Title V, Operating
Permit: V-08-028
Jim Beam Brands Co.- Old Grand Dad Plant
Frankfort, KY 40602
August 15, 2008

Chris Walling, Reviewer

SOURCE ID:	21-073-00003
AGENCY INTEREST:	1403
ACTIVITY:	APE20080002

SOURCE DESCRIPTION:

On July 2, 2008, the Jim Beam Brands Company, Old Grand-dad plant applied to the Division for a renewal operating Title V permit for a bourbon storage and processing facility in Frankfort, Kentucky. The facility processes distilled spirits, which are brought in by truck and pumped into storage tanks. The spirits are pumped from the storage tanks and/or into aging barrels. The barrels are then placed in aging warehouses. After the spirits are aged in barrels, they are pumped from the barrels to holding tanks. The spirits are then pumped from the tanks to the bottling line where the spirits are bottled, labeled, and prepared for shipment. There are two indirect heat exchangers on site that are used for steam and heating purposes.

COMMENTS:

Emission Unit 01: Barrel Filling, Aging and Dumping. Date Constructed 1911-1991

Emission Unit 02: Cistern, Holding, Processing, and Bottling Tanks, Bottle Filling, Labeling and Coding, and VOC Equipment Leaks. Date Constructed 1978-1996.

Emission Unit 03: Two Natural Gas Fired (#2 Oil Back-Up) Horizontally Opposed Indirect Heat Exchangers, 25.1 MMBtu/hr each. Date Constructed 1992.

APPLICABLE REGULATIONS:

401 KAR 59:015, New Indirect Heat Exchangers, applicable to an emissions unit with a capacity of less than 250 MMBtu/hr which commences on or after April 9, 1972.

401 KAR 60:005, Standards of performance for small industrial-commercial-institutional steam generating units, incorporating by reference 40 CFR 60, Subpart Dc, for units less than or equal to 100 MMBtu/hour but greater than or equal to 10 MMBtu/hour commenced after June 9, 1989.

Emission Unit 03 Natural Gas/Fuel Oil fired indirect Heat Exchangers (#1 and #2):

Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions shall not exceed 0.38 lb/MMBtu based on a three-hour-average. Compliance with the allowable particulate standard while burning #2 fuel oil may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information as follows:

PM Emissions (lb/MMBtu) from combustion of fuel oil = (U.S. EPA approved or AP-42 emissions factor: 2.0 lbs / 10^3 gallons) / (heating value from fuel analysis in MMBtu/10^3 gallons).

Pursuant to 401 KAR 60:005, Section (3), the sulfur dioxide emissions shall not exceed 0.5 lb/MMBtu based on a twenty-four-hour average. Compliance with the allowable sulfur dioxide standard while burning #2 fuel oil may be demonstrated by calculating sulfur dioxide emissions using fuel oil usage rates, fuel analysis, and emission factor information as follows:

SO_2 Emissions (lb/MMBtu) from combustion of fuel oil= (U.S. EPA approved or AP-42 emission factor: 142 x Sulfur in lbs / 10^3 gallons) / (heating value from fuel analysis in MMBtu / 10^3 gallons.

Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed 20% opacity based on a six minute average, except that a maximum of 40% opacity based on a six minute average, shall be permissible for not more than 6 consecutive minutes in any consecutive 60 minutes during cleaning the fire-box or blowing soot.

While burning natural gas, this unit is considered to be in compliance with PM, SO_2 and opacity standards.

Pursuant to 401 KAR 52:020 Section 26, when burning fuel oil, the permittee shall perform a qualitative visual observation of the opacity of emissions from the stacks on a weekly basis and maintain a log of the observations. If visible emissions from the stacks are seen (not including condensed water vapor within the plume), then the opacity shall be determined by Reference Method 9. If emissions are in excess of the applicable opacity limit, then an inspection shall be initiated of the equipment for any necessary repairs.

Pursuant to 401 KAR 52:020 Section 26, the permittee shall monitor the heat content and sulfur content of the #2 fuel oil burned on a weekly basis. Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart Dc, the permittee may use fuel supplier certification to meet the requirements.

Pursuant to 401 KAR 52:020 Section 26, the permittee shall monitor and record the natural gas and #2 fuel oil usage rates on a monthly basis.

The 12,000 gallon storage tank for #2 fuel oil (emission unit 05), is now an insignificant unit. The reason being that, 40 CFR 60, Subpart Kb, Standards of performance for volatile organic liquid storage vessels (including petroleum liquid storage vessels) for which construction, reconstruction, or modification commenced after July 23, 1984, has been revised. The revision exempt fuel storage tanks that have the capacity less than 75 cubic meters, which equals 19,813 gallons.

OPERATIONAL FLEXIBILITY:

NA

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.